

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO. 02AH35		PROJECT NAME Cheshire Monitoring study			NO. OF CON- TAINERS	<div style="text-align: right;">Activity Code: 12345</div> <div style="text-align: center; font-size: 2em;">AIR 20020043</div>											
SAMPLERS: (Print Name and Sign) Mike murphy <i>Mike Murphy Mike Murphy</i>																	
STA. NO.	DATE	TIME	COMP	GRAB												STATION LOCATION	TAG NUMBERS
DO1	2/25	00:00	X		GHS	1											5-340164 1 to 1
SO1	2/25	00:00	X		GHS	1											5-340163 1 to 1
SO2	2/25	00:00	X		RVHS	1											5-340165 1 to 1
SO3	2/25	00:00	X		ADDAVILLE	1											5-340166 1 to 1
																	GHS# 3012, Pstg Avg = 19.45
																	GHS# 3013, Pstg Avg = 19.1
																	RVHS# 3009, Pstg Avg = 17.4
																	Addaville # 3011, Pstg Avg = 18.85
Relinquished by: (Signature) <i>M. J. Murphy</i>		Date / Time 2-25-02 14:11		Received by: (Signature) <i>William S. R.</i>				Ship To:									
Relinquished by: (Signature)		Date / Time		Received by: (Signature)													
Relinquished by: (Signature)		Date / Time		Received for Laboratory by: (Signature) <i>William S. R.</i>				Date / Time 2/28/02 11:21am		Airbill Number UPS # 12 401 199 01 40904641							
										Chain of Custody Seal Numbers							

Project No. 02AH35 Project Name CHESHIRE MONITORING STUDY 90101A
AIR 2002 0043 ARRIVAL DATE: 2/28/2002 DUE DATE: 3/21/2002

Sampler

Mike murphy

Cooler ID 02AH351 Page 5-140040

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH35DO1	DO1	25/02/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340164 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH35SO1	SO1	25/02/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340163 1 to 1

Bottle No. 1

Parameter

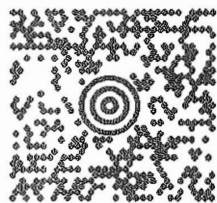
PM10

Note: Could not print complete page, Not sure why!

SAMPLE I.D.	PARAMETER	DATE/TIME	STATION LOCATION	#BOTTLES	TAG-NUMBERS
2002AH35 SO2	PM10	25/02/2002	GRAB RVHS	1	5-340165 1 to 1
2002AH35 SO3	PM10	25/02/2002	GRAB ADDAVILLE	1	5-340166 1 to 1

FROM:
SOUTHEAST DISTRICT OFFICE
(740) 385-8501
OHIO EPA
2195 E. FRONT STREET
LOGAN OH 43138-8637

1 LBS 1 OF 1



IL 606 9-08



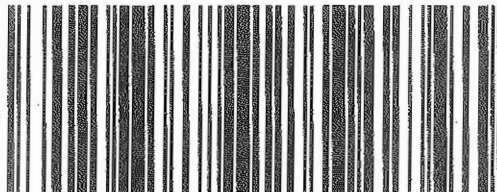
SHIP TO:

WILLIAM SARGENT JR.
USEPA CENTRAL REGIONAL LABORATORY
10 FLOOR
536 SOUTH CLARK STREET
CHICAGO IL 60605

UPS NEXT DAY AIR

TRACKING#: 1Z 401 199 01 4090 4641

1



BILLING: P/P

UOW 3.5.1 Konica F 14.0A 09/2001



EXTREMELY URGENT

CENTRAL REGIONAL LABORATORY

Data Checklist

Data Set AIR 2002 0043 Cheshire Monitoring Study

- ☒ Chain-of-Custody
- ☒ Analysis Request Form(s)*
- ☐ Sample Tags
- ☒ Transmittal Report w/signatures of the following:
 - Analyst (s)
 - Peer Reviewer
 - Environmental Data Coordinator

* Analysis Request Forms provide the data user a means to connect sample numbers with sampling locations

Prepared by: Sylvia Puffer 3/7/02
Data Management Coordinator



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: MAR 07 2002

Subject: Review of Region 5 Data for CHESHIRE MONITORING STUDY

From: **Edgar Santiago, Chemist** E.S.
Region 5 Central Regional Laboratory

To:

Attached are the results for: CHESHIRE MONITORING STUDY

CRL data set number: **20020043**

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: **2002AH35D01, 2002AH35S01, 2002AH35S02, and 2002AH35S03.**

MAR 07 2002

Data Management Coordinator and Date Received

Date Transmitted: MAR 07 2002
/ /

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

_____/ /
Received by and Date

Comments:

Rev. 7/23/01

Data Set Number:	<u>20020043</u>	Parameter:	<u>Suspended Particles</u>
Facility Name:	<u>CHESHIRE MONITORING STUDY</u>		
Study Name:	<u>CHESHIRE MONITORING STUDY</u>		
Date of Narrative:	<u>03/06/2002</u>	Analyst:	<u>ES</u>
		Signature:	<u>ES</u>

ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on February 28, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q6279959	2002AH35D01	5-340164
Q6280094	2002AH35S01	5-340163
Q6280095	2002AH35S02	5-340165
Q6279958	2002AH35S03	5-340166

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 03/05/2002 and was completed on 03/06/2002.

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

A small tear was observed along the corner in exposed filter Q6280094 (CRL sample I.D number 2002AH35S01). Suspended particle results for that sample could be biased low due to loss of particles or filter materials. A probable cause for those tears are activities related to removal of exposed filters from the individual sampling equipment in the field. Use the data with caution.

Exposed filter Q6279959, Q6280095 and Q6279958 (CRL sample I.D numbers 2002AH35D01, 2002AH35S02 and 2002AH35S03) had no tear or holes. The results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 02/25/2002 LAB ARRIVAL DATE: 02/28/2002 DUE DATE: 03/21/2002
DU NUMBER: 90101A DATA SET NUMBER: 20020043 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY :CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH35D01	GUIDING HANDS SCHOOL	0.1214			
2	2002AH35S01	GUIDING HANDS SCHOOL	0.1145			
3	2002AH35S02	RVHS	0.0365			
4	2002AH35S03	ADDAVILLE	0.0728			
DATE OF ANALYSIS			03/05-06/2002			
ANALYST			E.S.			

Reviewed by: FJA Date: 3/7/2002

Page 1 of 1

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 02/25/2002 LAB ARRIVAL DATE: 02/28/2002 DUE DATE: 03/21/2002
DU NUMBER: 90101A DATA SET NUMBER: 20020043 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY: CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
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2	2002AH35S01	GUIDING HANDS SCHOOL	0.1145			
3	2002AH35S02	RVHS	0.0365			
4	2002AH35S03	ADDAVILLE	0.0728			
DATE OF ANALYSIS			03/05-06/2002			
ANALYST			E.S.			

Reviewed by: EMA

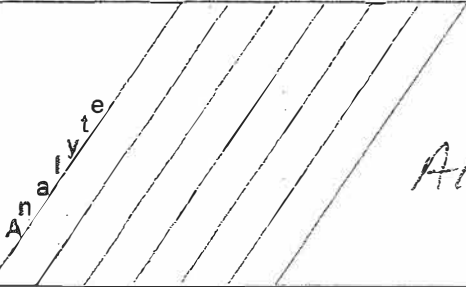
Date: 3/7/2002

Page 1 of 1

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO. 02AH35		PROJECT NAME Cheshire Monitoring study				NO. OF CON- TAINERS	<div style="text-align: center;">  <p>AIR 20020043</p> </div>										Activity Code: 12345	
SAMPLERS: (Print Name and Sign) Mike murphy <i>Mike Murphy</i> <i>Mike Murphy</i>																		
STA. NO.	DATE	TIME	COM	GRAB	STATION LOCATION													
DO1	2/25	00:00	X		GHS	1											5-340164 1 to 1	
SO1	2/25	00:00	X		GHS	1											5-340163 1 to 1	
SO2	2/25	00:00	X		RVHS	1											5-340165 1 to 1	
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																	GHS# 3012, Postg Avg = 17.45	
																	GHS# 3013, Postg Avg = 19.1	
																	RVHS# 3009, Postg Avg = 17.4	
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Relinquished by: (Signature) <i>M. J. Murphy</i>		Date / Time 2-25-02 14:11		Received by: (Signature) <i>William Symp</i>				Ship To:										
Relinquished by: (Signature)		Date / Time		Received by: (Signature)				ATTN:										
Relinquished by: (Signature)		Date / Time		Received for Laboratory by: (Signature) <i>William Symp</i>				Date / Time 2/28/02 11:21am		Airbill Number UPS #12 001 199 01 40904641								
														Chain of Custody Seal Numbers				

5-140040

Project No. 02AH35 Project Name CHESHIRE MONITORING STUDY 90101A
 AIR 2002 0043 ARRIVAL DATE: 2/28/2002 DUE DATE: 3/21/2002

Sampler Mike murphy

Cooler ID 02AH351 Page 5-140040

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH35DO1	DO1	25/02/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340164 1 to 1

Bottle No. 1
 Parameter PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH35SO1	SO1	25/02/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340163 1 to 1

Bottle No. 1
 Parameter PM10

Note: Could not print complete page, not sure why!

SAMPLE I.D.	PARAMETER	DATE/TIME	STATION LOCATION	#BOTTLES	TAG-NUMBERS
2002AH35:502	PM10	25/02/2002	GRAB RVHS	1	5-340165 1 to 1
2002AH35:503	PM10	25/02/2002	GRAB ADDAVILLE	1	5-340166 1 to 1

CRL SOP: HK015	Date: 07 January 2000	Revision No: 1
Data review for the Analytical and Inorganic Group	Page 9 of 9	

ATTACHMENT II

CRL Analytical and Inorganics Data Review Checklist

Batch Number: 2002 0043 Facility: CHESIRE AIR MONITORING
 Parameter: PM10 CRL.SOP: ALG 047

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	N/A	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?		
Narrative Complete?	✓	

Analyst: E.S. Peer Reviewer: K.A.A.

Date: 3/6/2002 Date: 3/7/2002

Comments Attached? (Y/N) N

Data Set Number:	<u>20020043</u>	Parameter:	<u>Suspended Particles</u>
Facility Name:	<u>CHESHIRE MONITORING STUDY</u>		
Study Name:	<u>CHESHIRE MONITORING STUDY</u>		
Date of Narrative:	<u>03/06/2002</u>	Analyst:	<u>ES</u>
		Signature:	<u>E.S.</u>

ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on February 28, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

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Q6280094	2002AH35S01	5-340163
Q6280095	2002AH35S02	5-340165
Q6279958	2002AH35S03	5-340166

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 03/05/2002 and was completed on 03/06/2002.

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

A small tear was observed along the corner in exposed filter Q6280094 (CRL sample I.D number 2002AH35S01). Suspended particle results for that sample could be biased low due to loss of particles or filter materials. A probable cause for those tears are activities related to removal of exposed filters from the individual sampling equipment in the field. Use the data with caution.

Exposed filter Q6279959, Q6280095 and Q6279958 (CRL sample I.D numbers 2002AH35D01, 2002AH35S02 and 2002AH35S03) had no tear or holes. The results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

CHESHIRE AIR MONITORING PROJECT PM10

Parameter: Suspended Particles

Data Set Numbers: 20020042- 20020043

Date of Analysis 03/05-06/2002

Analyst: ES

BALANCE VERIFICATION:

Standard Weights	Balanced weight	Differences
Actual (g)	Balanced (g)	(g)
Limit +/-0.0005 g		
1.0000	1.0001	-0.0001
2.0000	2.0000	0.0000
5.0000	4.9999	0.0001

QC-SUMMARY FOR EXPOSED FILTERS

Filter ID	CRL Sample	Analysis	ANALYST	Exposed
Number	I.D Number	Date		weight (g)
Q6280124	2002AH34S02	03/06/02	Analyst 1	4.4085
Q6280124	2002AH34S02	03/06/02	Analyst 2	4.4084
Differences (Limit +/- 5 mg).....				0.0001
Q6279958	2002AH35S03	03/06/02	Analyst 1	4.4328
Q6279958	2002AH35S03	03/06/02	Analyst 2	4.4328
Differences (Limit +/- 5 mg).....				0.0000

CHESHIRE AIR MONITORING PROJECT
PM10

Filter ID	CRL Sample	Sampling	Station	Sampler	Pstg	P1/Pa	Total	Pre Weight	Exposed	Weight	PM10
Number	I.D Number	Date	Location	SN	Avg		Volume (M^3)	of filters (g)	weight (g)	Gain	(UG/M^3)
Data set Number 20020043											
Q6279959	2002AH35D01	02/25/02	Guiding Hands School	3013	19.10		0.00	4.3471	4.4685	0.1214	ERR
Q6280094	2002AH35S01	02/25/02	Guiding Hands School	3012	19.45		0.00	4.3557	4.4702	0.1145	ERR
Q6280095	2002AH35S02	02/25/02	RVHS	3009	19.40		0.00	4.3828	4.4193	0.0365	ERR
Q6279958	2002AH35S03	02/25/02	Addaville	3011	18.85		0.00	4.3600	4.4328	0.0728	ERR

General information

Standard weights, actual (g)

Balanced weights, balanced (g)

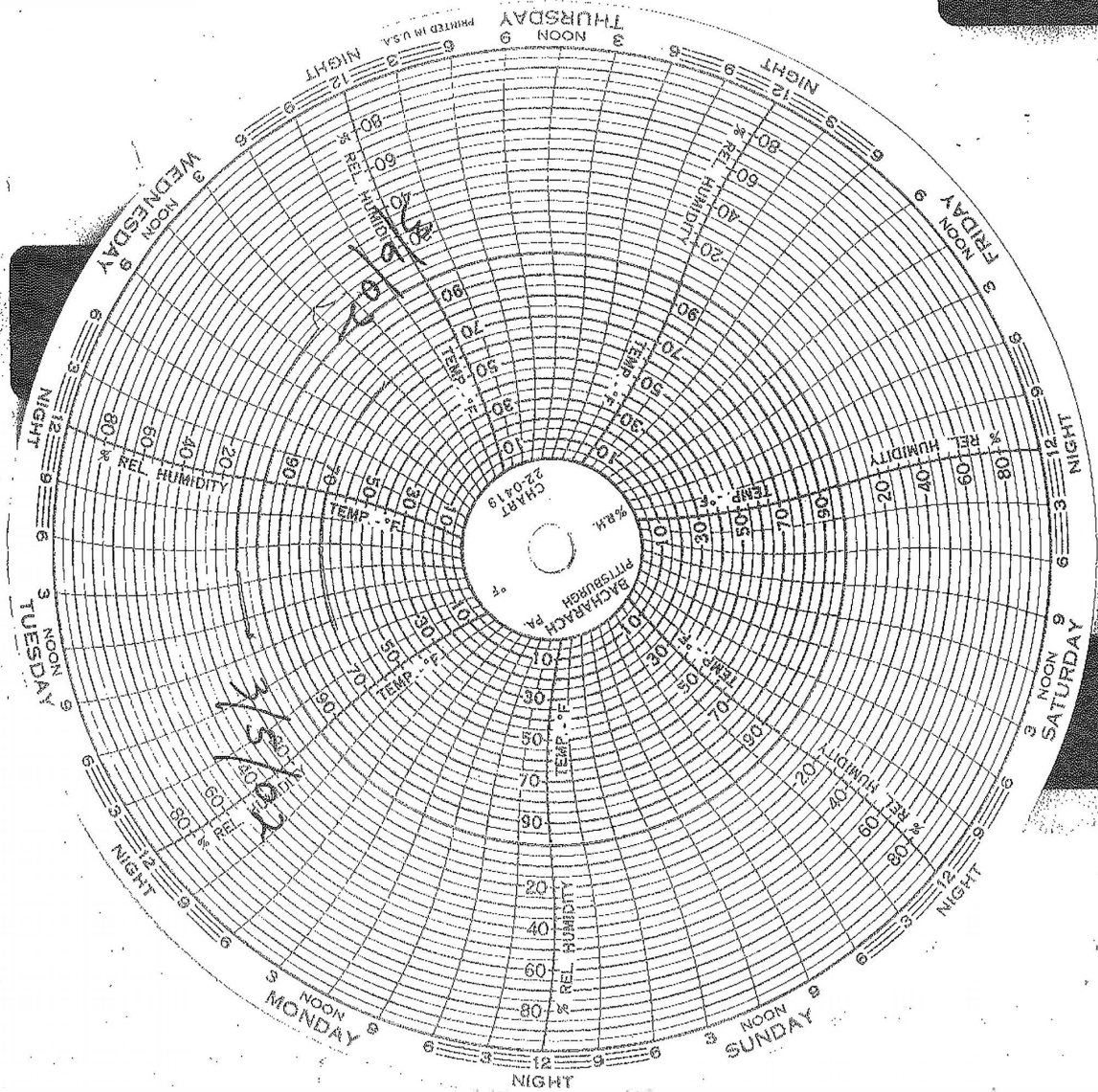
Mettler Toledo	5.00	5.0001
2/26/02 to	1.00	1.0001
S/N 1120181846	0.50	0.5001
	2.00	1.9999
	7.00	7.0001

STARTORIUS	(500+200 ^(mg) +200+100)	1.0000	1.0001
S/N 37010119		2.0000	2.0001
2/27/2002 E.S		5.0000	4.9998

STARTORIUS	(500+200 ^(mg) +200+100)	1.0000	1.0001
S/N 37010119		2.0000	2.0000
3/06/2002		5.0000	4.9999

FILTER I.D.	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt DUP (g)	COMMENTS
Q6279981	4.3392				
Q6279980	4.3277				
Q6279979	4.3413				
Q6279978	4.3286				
Q6279977	4.3605				
Q6279976	4.3560				
Q6279975	4.3479	4.3482 ^{FM}			
Q6279974	4.3368				
Q6279973	4.3615				
Q6279972	4.3590				
Q6279971	4.3547				
Q6279970	4.3729				
Q6279969	4.3818				
Q6279968	4.3362	4.3364 ^{FM}			
Q6279967	4.3575				
Q6279966	4.3708				
Q6279965	4.3650				
Q6279964	4.3367				
Q6279963	4.3710				
Q6279962	4.3820	4.3821 ^{FM}			
Q6279961	4.3700				
Q6279960	4.3595				
Q6279959	4.3471		4.4685		
Q6279958	4.3600		4.4328	4.4328	

FILTER I.D.	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt. DUP (g)	COMMENTS
Q6280088	4.3680		4.3880		
Q6280087	4.3802		4.3952	4.3954	
Q6280086	4.3774		4.4076		
Q6280010	4.3762		4.3941		
Q6280009	4.3611				
Q6280008	4.3420		4.3370		
Q6280007	4.3662		4.3701		
Q6280006	4.3721		4.3692		
Q6280005	4.3129		4.3332		
Q6280004	4.3647		4.3804	4.3807	
Q6280003	4.3563		4.3715		
Q6280002	4.3415		4.3532		
Q6280001	4.3437		4.3574		
Q6280000	4.3727		4.3816		
Q6279999	4.3639				
Q6279998	4.3384				
Q6279997	4.3703		4.3812		
Q6279996	4.3715		4.4201		
Q6280093	4.3732		4.3849 E.S.		
Q6280094	4.3557		4.4702 E.S.		CORNER PART TEARED OFF
Q6280095	4.3828		4.4193		
Q6280124	4.3725		4.4085	3/6/02 4.3962 73	4.4084
Q6280125	4.3467		4.4080	4.4075 Rup	
Q6280123	4.3819		4.4277	4.4281	
Q6280092	4.3409		4.3632		SMALL TEAR



COMMENTS:

STD _____ ACTUAL _____ PM-10 _____
 FLOW _____ m^3/min _____
 ELAPSED TIME _____ MINUTES _____
 AVG. RECORDER RESP. _____ 19.1 _____
 TSP _____ SITE _____
 PM-10 _____
 AIRS _____
 OPERATOR _____ DATE 2-25-02
 INITIAL WT _____ mmHg _____
 FINAL WT _____ K _____
 TOTAL FLOW _____ m^3 _____
 SAMPLE WT _____ ug/m^3 _____

US EPA Region 5 Field Sample



5-340164-1

Parameters PM10

2002043

Preservative None S M MD B D

Sample ID 02AH35DO1 X

Sampler M.J. May

Date 2-25-02

US EPA Region 5 Field Sample

5-340163-1

Parameters PM10

20020053

Preservative None S M MD B D

Sample ID 02AH35S01 X

Sampler M.J. Muep

Date 2-25-02

AIRS

PM-10

OPERATOR

DATE 2-25-02

TSP

SITE

CHH 5012, 262800-24

AVG. RECORDER RESP.

TEMP

°C

K

FINAL WT

g

ELAPSED TIME

MINUTES

PRESS

mmHg

INITIAL WT

g

FLOW

m³/min

TOTAL FLOW

m³

SAMPLE WT

g

STD

ACTUAL

PM-10

ug/m³

COMMENTS:

US EPA Region 5 Field Sample



5-340165-1

Parameters

20020413

Preservative **S M M D B D**
 Sample ID 02AH35SO2
 Sampler *M. J. M...*
 Date *2-25-02*

PM-10 ☒ SARGAD ☐ OPERATOR *CEH* DATE *2-25-02*
 TSP ☐ SITE *Beachwalky* Q6210095
 AVG. RECORDER RESP. *15.4* TEMP ☐ °C ☐ K FINAL WT ☐ g
 ELAPSED TIME *1440* MINUTES PRESS ☐ mmHg INITIAL WT ☐ g
 FLOW ☐ m³/min TOTAL FLOW ☐ m³ SAMPLE WT ☐ g
 STD ☐ ACTUAL ☐ PM-10 ☐ µg/m³
 COMMENTS: _____

[illegible][illegible]

Parameters

2020043

Preservative

S M M D B D

Sample ID 02AH35503

Sampler *M. J. Myers*

Date 2-25-02